Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1. (withdrawn) An iron chelator delivery system for treating iron overload in the heart, comprising an iron chelator and a lipid carrier, wherein said lipid carrier further comprises an antibody for targeting at least one cardiac protein.

2. (withdrawn) The iron chelator delivery system of claim 1, wherein the iron chelator is selected from the group consisting of Desferrioxamine, deferipone, PIH, Rhodotorulic acid, HBED, HBPD, 2,3-dihydroxybenzoic acid, DTPA, and iron chelators produced by bacterial siderophores.

3. (withdrawn) The iron chelator delivery system of claim 1, wherein the concentration of the iron chelator is about 1 μM to about 100 mM.

4. (withdrawn) The iron chelator delivery system of claim 1, wherein the lipid carrier is a liposome having at least one bilayer.

5. (withdrawn) The iron chelator delivery system of claim 4, wherein the liposome is multilamellar or unilamellar.

6. (withdrawn) The iron chelator system of claim 4, wherein the size of the liposome is about 10 nm to about 10 microns.

7. (withdrawn) An iron chelator delivery system for targeting the heart, comprising an iron chelator and a lipid carrier, wherein the lipid carrier further comprises cationic or anionic charge groups.

8. (withdrawn) The iron chelator system of claim 1, wherein the antibody comprises an antibody specific to a cardiac protein, and wherein the cardiac protein is selected from the group consisting of cardiac myocyte proteins, vasculature proteins, endothelial cells, and matrix proteins.

9. (canceled)

10. (Currently amended) The iron chelator system of claim 34~~31~~, wherein the liver cell targeting agent is selected from the group consisting of asialoglycoprotein, galactose and mannose.

11. (withdrawn) The iron chelator system of claim 4, wherein the iron chelator is encapsulated between the liposome bilayers or intercalated within the bilayers.

12. (withdrawn) The iron chelator system of claim 4, wherein the iron chelator is encapsulated within the central cavity of the liposome.

13-29. (cancelled)

30. (withdrawn) The iron chelator delivery system of claim 1 wherein the cardiac protein is selected from the group consisting of myosin, troponin, and myosin light chain.

31. (cancelled)

32. (Currently amended) The iron chelator delivery system of claim 34~~31~~, wherein the liver carbohydrate~~cell~~ receptor is selected from the group consisting of a hepatocyte asialoglycoprotein receptor, a Kupffer cell mannose receptor, and a liver endothelial cell mannose receptor.

33. (Currently amended) The iron chelator delivery system of claim 34~~31~~, wherein the iron chelator is selected from the group consisting of Desferrioxamine, deferipone, PIH, Rhodotorulic acid, HBED, HBPD, 2,3-dihydroxybenzoic acid, DTPA, and iron chelators produced by bacterial siderophores.

34. (Currently amended). An~~The~~ iron chelator delivery system ~~of claim 31,~~ for treating iron overload in the liver, comprising an iron chelator and a lipid carrier, wherein said lipid carrier further comprises a liver cell targeting agent for targeting at least one liver carbohydrate receptor and wherein the concentration of the iron chelator is about 1 μM to about 100 mM.

35. (Currently amended) The iron chelator delivery system of claim 34~~31~~, wherein the lipid carrier is a liposome.

36. (Withdrawn) The iron chelator delivery system of claim 7, wherein the iron chelator is selected from the group consisting of Desferrioxamine, deferipone, PIH, Rhodotorulic acid, HBED, HBPD, 2,3-dihydroxybenzoic acid, DTPA, and iron chelators produced by bacterial siderophores.

37. (Withdrawn) The iron chelator delivery system of claim 7, wherein the concentration of the iron chelator is about 1 μM to about 100 mM.

38. (Withdrawn) The iron chelator delivery system of claim 7, wherein the lipid carrier is a liposome.

39. (Withdrawn) A method of preventing iron overload in a mammal, the method comprising:

administering to a mammal at risk of iron overload an iron chelator delivery system comprising an iron chelator and a lipid carrier, wherein the iron chelator delivery system is administered in a sufficient amount to prevent iron overload in the mammal.

40. (Withdrawn) The method of claim 39, wherein the iron chelator wherein the iron chelator is selected from the group consisting of desferrioxamine, deferipone, PIH, rhodotorulic acid, HBED, HBPD, 2,3-dihydroxybenzoic acid, DTPA, and iron chelators produced by bacterial siderophores

41. (Withdrawn) The method of claim 39, wherein the lipid carrier is a liposome having at least one bilayer.

42. (New) The iron chelator delivery system of claim 34, wherein the liver carbohydrate receptor is a Kupffer cell mannose receptor.

43. (New) The iron chelator delivery system of claim 34, wherein the iron chelator is in the lipid carrier.

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